

## Summary of Revised Assumptions

The selection of the actuarial assumptions reflects a work in progress. The assumptions shown here were first used in the January 1, 2013 actuarial valuation. However, we will continue to test and refine the assumptions in future years.

In this section, we show sample rates for each assumption. A rate essentially represents the likelihood of an event occurring at a given time. For example, the mortality rates represent the likelihood of death. The complete tables of assumptions are shown in the Appendix.

1. Rate of Investment Return: For valuations prior to January 1, 2013, the rate was 8.25% annually. We recommended this assumption be reduced to 8.0% as of January 1, 2013 in conjunction with the experience study. This assumption was not reviewed as part of this study.
2. Rates of Retirement: The following tables compare the prior and revised retirement rates. The rates are based on gender, service, and whether the teacher is subject to Retirement Plus.

Males Not in Retirement Plus:

	Less than 20 years		20+ years	
Age	Prior	Revised	Prior	Revised
50	0.00	0.000	0.02	0.02
55	0.06	0.035	0.05	0.03
60	0.15	0.075	0.20	0.15
62	0.20	0.140	0.35	0.30
65	0.30	0.300	0.40	0.30
68	0.30	0.300	0.30	0.25
70	1.00	1.000	1.00	1.00

Males in Retirement Plus:

	Less than 20 years		20 – 30 years		30 + years	
Age	Prior	Revised	Prior	Revised	Prior	Revised
50	0.00	0.00	0.01	0.01	0.02	0.02
55	0.03	0.05	0.03	0.03	0.06	0.06
60	0.15	0.10	0.20	0.25	0.50	0.40
62	0.20	0.20	0.30	0.35	0.40	0.35
65	0.40	0.25	0.40	0.40	0.50	0.35
68	0.40	0.30	0.30	0.30	0.50	0.40
70	1.00	1.00	1.00	1.00	1.00	1.00

## Summary of Revised Assumptions (continued)

### Females Not in Retirement Plus:

Age	Less than 20 years		20+ years	
	Prior	Revised	Prior	Revised
50	0.00	0.000	0.02	0.01
55	0.06	0.035	0.05	0.04
60	0.15	0.085	0.20	0.15
62	0.20	0.120	0.30	0.20
65	0.30	0.300	0.40	0.40
68	0.30	0.300	0.40	0.30
70	1.00	1.002	1.00	1.00

### Females in Retirement Plus:

Age	Less than 20 years		20 – 30 years		30 + years	
	Prior	Revised	Prior	Revised	Prior	Revised
50	0.00	0.00	0.015	0.01	0.02	0.015
55	0.02	0.03	0.03	0.03	0.06	0.05
60	0.20	0.10	0.16	0.20	0.35	0.35
62	0.25	0.12	0.30	0.30	0.40	0.35
65	0.30	0.25	0.30	0.40	0.35	0.35
68	0.30	0.30	0.30	0.30	0.30	0.30
70	1.00	1.00	1.00	1.00	1.00	1.00

### 3. Rates of Disability:

The prior assumptions for disability were found to closely match the experience. The rates of disability were slightly modified at a few ages and for all ages after age 54. We did not adjust the assumption that 35% of disabilities are job-related.

(Rates per ten thousand)

Age	Prior	Revised
20	0.4	0.4
30	0.6	0.6
40	1.0	1.0
50	5.0	5.0
60	10.0	7.0
65+	12.0	15.0

## Summary of Revised Assumptions (continued)

4. Rates of Withdrawal: The prior and revised rates are age and service based for the first 10 years of service and age based after 10 years. The revised rates are generally the same or higher for males and generally the same or lower for females compared to the prior rates.

### Male Rates

Age	Prior (0 years)	Revised (0 years)	Prior (5 years)	Revised (5 years)	Prior (after 10 years)	Revised (after 10 years)
30	.114	.150	.045	.054	.010	.015
40	.097	.133	.054	.052	.017	.017
50	.100	.162	.048	.070	.022	.023
60	.075	.200	.055	.090	.050	.050

### Female Rates

Age	Prior (0 years)	Revised (0 years)	Prior (5 years)	Revised (5 years)	Prior (after 10 years)	Revised (after 10 years)
30	.120	.150	.090	.088	.050	.045
40	.110	.105	.065	.050	.029	.022
50	.082	.098	.042	.050	.021	.020
60	.080	.200	.055	.060	.050	.050

5. Rate of Salary Increase: The following table compares prior and revised salary increase rates. The revised rates are generally lower than the current rates. The ultimate rate after 20 year of service has been reduced by .75%.

Service	Prior	Revised
0	8.00%	7.50%
5	6.75%	6.70%
10	5.50%	5.90%
15	4.75%	4.20%
20+	4.75%	4.00%

## Summary of Revised Assumptions (continued)

6. Pre-Retirement Mortality: Prior rates of mortality were in accordance with the RP-2000 Employees table projected 10 years with Scale AA. The revised rates reflect the RP-2000 Employees table adjusted for white collar employment and projected 20 years with scale AA (gender distinct).

(Rates per ten thousand)

Age	Prior		Revised	
	Males	Females	Males	Females
20	2.85	1.63	1.88	1.38
30	4.22	2.39	3.21	2.16
40	9.96	6.07	7.35	4.75
50	17.83	14.12	13.68	11.30
60	41.51	37.39	30.74	33.78
65	65.77	55.36	50.84	52.66

7. Post-Retirement Mortality: Prior rates of mortality were in accordance with the RP-2000 Healthy Annuitant table projected 10 years with Scale AA. The revised rates reflect the RP-2000 Healthy Annuitant table adjusted for large annuity amounts and projected 15 years with Scale AA (gender distinct). For disabled members, prior rates are in accordance with the RP-2000 Healthy Annuitant table set forward 3 years for males. The revised rates reflect the RP-2000 Healthy Annuitant table adjusted for large annuity amounts and projected 5 years with Scale AA (gender distinct) and set forward 3 years for males.

(For both tables below, rates per ten thousand)

### *Non-Disabled Members*

Age	Prior		Revised	
	Males	Females	Males	Females
50	44.59	19.75	24.43	17.40
60	69.75	58.97	51.48	48.31
70	190.91	159.23	132.77	130.44
80	582.13	427.67	437.35	384.00
90	1,762.02	1,277.84	1,433.47	1,082.57

### *Disabled Members*

Age	Prior		Revised	
	Males	Females	Males	Females
50	57.22	23.44	35.17	20.65
60	109.51	62.00	83.69	50.79
70	303.87	167.42	205.68	137.15
80	897.18	458.79	706.73	411.94
90	2,336.62	1,316.82	1,910.47	1,115.58